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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/214,865	01/14/1999	YOSHIHIKO TAKISHITA	Q52837	8105
7590 05/16/2006			EXAMINER	
SUGHRUE MION ZINN MACPEAK & SEAS			GUTIERREZ, ANTHONY	
2100 PENNSYLVANIA AVENUE NW			ART UNIT	
WASHINGTON, DC 20037			PAPER NUMBER	
			2857	

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/214,865

Applicant(s)

TAKISHITA, YOSHIHIKO

Examiner

Anthony Gutierrez

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,9-15 and 46-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9-15 and 46-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 11, 14, 49, 50, 53, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanda et al (United States Patent 5,348,013) in view of Wood et al. (United States Patent 5,715,823).

With regard to claims 1, 11, and 53, Kanda et al teaches an ultrasonic inspection system that includes an inspection system with a probe and a main body (fig. 5, parts 2 and 1000), a computer (col. 8, lines 63+), a data storage section (fig. 35, part 619) for storing specimen inspection data (col. 6, lines 24-25), and wherein the data is reception level data (col. 6, lines 15-16) and the computer including means for comparing recent data to a predetermined setup value (col. 26, lines 13-18 & 54-57). Kanda et al does not teach the computer being a "host" computer and does not teach a plurality of inspection systems being connected to a host computer through a transmission line. Wood et al teaches a host computer connected to a plurality of ultrasonic inspection systems (fig. 16), each with it's own storage unit (fig. 1, part 24), and the ultrasonic inspection system receiving reception level data (fig. 1, part 12 & col. 2, lines 62+) and

transferring this data to the host (col. 13, lines 1-5). Wood et al does not specify the data being compared to a predetermined value, however. Since Wood et al and Kanda et al both teach ultrasonic inspection systems in which data is stored and processed by a computer, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Kanda et al, so that multiple inspection systems are connected together and the data transferred to a main unit or host computer, as taught by Wood et al, in order to improve efficiency and cut costs by operating a plurality of systems from a main host unit.

With regard to claim 3, Kanda et al teaches the inspection system comprising a determination means (fig. 5, part 24).

With regard to claim 14, Kanda et al teaches a probe data reception means for receiving data of the probe (fig. 5, part 3).

With regard to claims 49 and 54, Kanda et al teaches the system comprising a display section (fig. 5, part 14).

With regard to claim 50, Kanda et al teaches the system having a data management function and the ultrasonic probe being provided with a storage device for storing characteristic data (fig. 5, part 21).

3. Claims 4-7, 46-48, 51, and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanda et al. (United States Patent 5,348,013) in view of Lather et al. (United States Patent 4,240,281).

Kanda et al does not teach the ultrasonic inspection system comprising of a probe test. Lather et al teaches an automatic self-checking of test equipment

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consisting of a probe comprising a T/R circuit (fig. 1, part 4), waveform-processing circuit (fig. 1, part 6), data storage for storing probe data (fig. 4, parts 6 and 19), and control section (fig. 1, part 8). Lather et al teaches opposing the probe to a test object (fig. 1, part 1), collecting data from the T/R circuit when probe is excited (col. 2, lines 5-10), disconnecting the probe from the T/R circuit and collecting a second data (col. 1, lines 58+), and determining whether the probe is abnormal based on the tests (col. 2, lines 25-34). Since Kanda et al and Lather et al are both within the art of operating ultrasonic data-collecting equipment, and because Lather et al teaches the benefits of probe self-test, it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify Kanda et al, so that the inspection system includes a probe test means, as taught by Lather et al, so as to receive the benefits of saving system down-time and improving data accuracy.

4. Claims 9, 10, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanda et al. (United States Patent 5,348,013) in view of La Pierre (United States Patent 5,951,611).

Kanda et al does not specify the inspection system having a change comparison means. La Pierre teaches a method of analyzing trend data of an engine in which difference between the most recent data and the preceding data is compared to a threshold (fig. 1, step 16 & col. 1, lines 45+). Since Kanda et al and La Pierre are both within the art of defect inspection, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Kanda et al, so that a

change comparison means is included, as taught by La Pierre, so as to receive the benefit of enhanced data accuracy.

5. Claim 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Kanda et al. (United States Patent 5,348,013) in view of Senba (JP-404310859A).

Kanda et al also does not teach the data being predetermined data in components making up the system body. Senba, as best can be determined by the reference, teaches an inspection system that include component data reception means for receiving predetermined component data (abstract). Because Kanda et al and Senba are both within the art of specimen inspection, it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify Kanda et al, so that the ultrasonic inspection system receives data in components making up the system body, as taught by Senba, in order to minimize breakdowns and improve reliability.

Response to Arguments

6. Applicant's arguments filed 3/1/06 have been fully considered but they are not persuasive.

Applicant argues that the combination of Kanda and Wood fails to teach at least the feature of the host computer which "includes reception level comparison means for comparing most recent data of the reception level data or an average of continuous reception level data pieces containing the most recent data with a predetermined reception level setup value", as claimed.

The Examiner disagrees.

The previous Office Action included the citation of col. 26, lines 13-18 & 54-57 of Kanda et al., to address this limitation. Lines 54-57 of the reference discloses that signal levels of the echo signals are compared with the threshold level V_T .

Lines 13-18 and additionally col. 26, line 62- col. 27, line 3, specifically address the use of average values in these steps.

The Examiner therefore maintains that the reference to Kanda et al. includes this limitation.

The Applicant asserts the absence of a determination means for analyzing the specimen inspection data and determining whether or not a specimen contains a defect and asserts that the Examiner has not addressed this limitation in the previous rejection.

The Examiner considers this limitation to be addressed by the citation addressed in the argument above, the figure referred to in that citation and an overall understanding of the pertinent art as is more specifically addressed in the Background (col. 1, lines 9-21) of Kanda et al.

The Figure referred to is 39C, which shows the use of threshold level V_T and judgment results of "good" or "no good" with respect to the signal levels of the echo signals. The Background provides the context that the ultrasonic apparatus is a **diagnostic** apparatus for improving image qualities of acquired ultrasonic images **with respect to unequal portions** within a biological body based upon fluctuations in arrival times of echo signals.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Therefore the Examiner believes that under this interpretation of the art, the combination of references suggests Applicant's claimed invention.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

United States Patents

5,339,815 to Liu et al. teaches a method and apparatus for analyzing an ultrasonic image that includes a host computer and threshold comparison.

4,799,168 to Sarr teaches an ultrasonic inspection system which uses echo pulse gate reference levels.

4,004,454 to Matay, teaches an ultrasonic inspection system that provides automatic distance amplitude compensation.

3,640,122 to Nusbickel, Jr., teaches an ultrasonic defect signal discriminator which uses a ratio alarm.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Gutierrez whose telephone number is (571) 272-2215. The examiner can normally be reached on Monday to Friday.

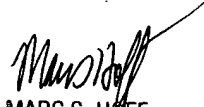
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on (571) 272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AG
Anthony Gutierrez

5/12/06


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